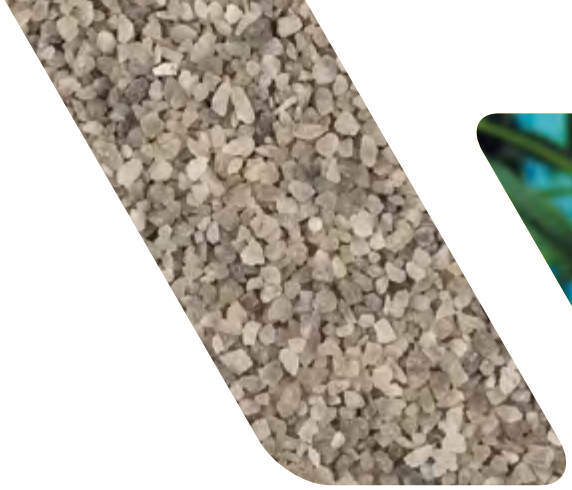


Polysulphate®

Trial

Green pepper
(Capsicum annuum)
on a sandy loam soil

Polysulphate fertilizer is a soluble, easily-absorbed, cost-effective answer to crop nutrition, containing four key plant nutrients: sulphur, potassium, magnesium and calcium.

S	48% SO_3 (19.2% S)
K	14% K_2O (11.6% K)
Mg	6% MgO (3.6% Mg)
Ca	17% CaO (12.2% Ca)

ICL

Fertilizerplus®
Premium plant nutrition from ICL Fertilizers

When

Transplant:
December 2015
Harvest:
January-April 2016

Where

Hainan, China

Crop

Green pepper
(Capsicum annuum)

Soil type

Sandy loam soil

Measurements

- Yield
- Shelf life
- Soil pH after harvest

Objective

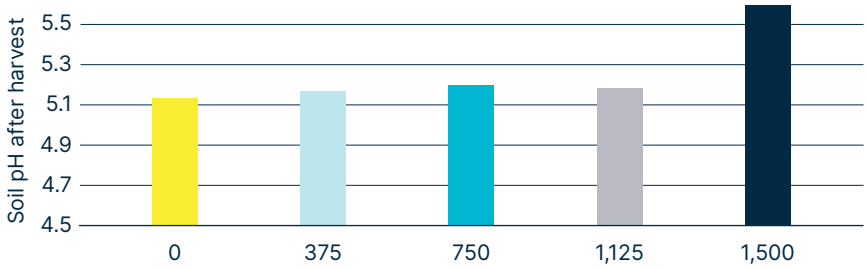
To investigate the effect of increasing rates of Polysulphate on the soil pH after harvest, yield and shelf life of green pepper.

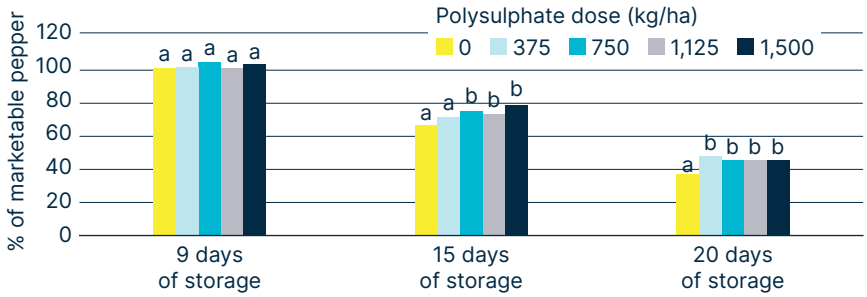
Treatments

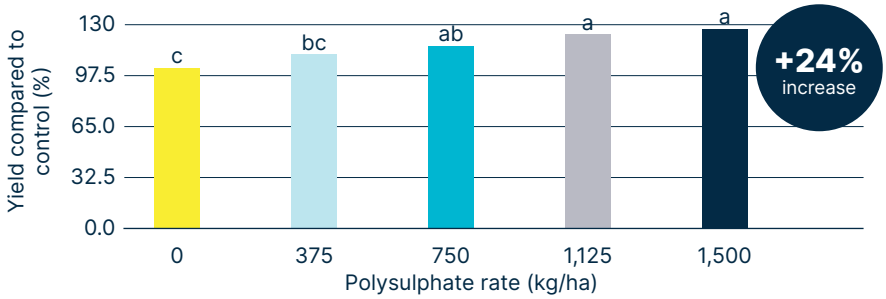
This randomized block trial consisted of three replicates with five treatments. In all treatments, nitrogen, phosphorus and potassium were applied according to farmers' traditional practice: 1,125 kg/ha of compound fertilizer (15-15-15) applied as base-fertilizer followed by a topdressing of 375 kg/ha of compound fertilizer at fruit stage. Four treatments consisted of increasing rates of Polysulphate: 375, 750, 1,125 and 1,500 kg/ha. Control treatment received the same NPK but no Polysulphate was applied.

Results

- Application of Polysulphate increased the pH after harvest and thus the availability of nutrients in the soil, especially for K, Ca and Mg, that in turn improves the fertility of acidic soil.
- There was no significant difference in the percentage of marketable pepper among all treatments after 9 days of storage. As the storage time was increased from 9 days to 15 and then 20 days, a significantly higher percentage of marketable pepper was achieved in treatments that contained Polysulphate, due to improved shelf life.
- Comparing Polysulphate treatments with the control, the yields of green pepper increased significantly by up to 24% at the highest dose (1,500 kg Polysulphate/ha).
- Polysulphate application was very profitable, with increasing additional profits of 960, 1,620, 2,415 and 2,250 USD/ha for 375, 750, 1,125 and 1,500 kg Polysulphate/ha respectively when compared with the control treatment.







** Different letters above bars indicate significant differences among treatments (p<0.05)*

Mined in the UK, ICL is the first – and only – producer in the world to mine polyhalite, marketed as Polysulphate.

Polysulphate

fertilizers.sales@icl-group.com
icl-growingsolutions
@iclgrowingsolutions
@ICLGrowingSolutions

http://icl-growingsolutions.com

For more information consult http://icl-growingsolutions.com/contact-office/ for your contact in your region.